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Dedicated and experienced in design and problem solving. Project and team oriented engineer dedicated to using creative methods to solve industry and world problems.

### **EDUCATION**

 B.S. Mechanical Engineering Washington University/University of Missouri 01/2015 – 12/2019
Saint Louis, MO.

### WORK EXPERIENCE

### Mechanical Engineering Co-op

Nidec Motor Corp

Achievements/Tasks

08/2018 – Present

Ferguson, MO.

- Designed calbration system for load cell, accelerometer, and vibrational shaker testing equipment.
- Designed test fixtures for motor component fatigue.
- Assisted application engineers with heat, performance, and life testing of new motor models.
- Intepreted data from tests to make design changes, engineering change orders (ECO), engineering work orders (EWO).
- Processed technical documents, shipping requests, and performed mark-ups for engineering drawings.
- Responsible for using OSHA safety standards and lockout-tagout procedures for operating high voltage testing equipment and tools.

Contact: Mark Dierkes – (888) 637-7333

## Teacher/Technician

### Band Instrument Service Company

06/2008 - 08/2018

St. Charles, MO.

Achievements/Tasks

- Taught private music lessons, large classses, and master classes for all skill levels.
- Performed public speaking/communication experience on small and large scale audiences.
- Employed Blooms Taxonomy and Gagne's 9 Events to develop lesson plans, write cirriculum, and recorded performance metrics for analysis.
- Performed detailed intrument repair using problem solving methods and specialized tools. Developed methods for enhancing tonal quality of inexpensive instruments.
- Utlized organization skills and time management experience to maintain lesson plans and schedules. Employed Gantt charts to schedule class and student outcomes.

# **KEY SKILLS**



## PROJECTS

#### Sensor Calibration System (01/2019)

 Designed a cost effective systm for calibrating vibrational load cells, impact hammers, and shakers. System is multifunctional, compact and configurable. Is currently being used in a vibrations lab for calibration before testing

### Senior Design Project (07/2019)

 Designed a automated robotic system for delivering, and connecting extension cord at a range of up to 100 ft. This robot can be operated by cell phone app, or be set to fully automated. The results of this project have been published and video is available.

### Thermal Design Concept (03/2019)

 Designed and presented a portable water desalination system: A backpack sized desalinator that is capable of removing salt from ocean water at the rate sufficient for a single persons daily water requirment. This system uses only solar power for both heat and electrical energy.

Projects can be viewed on portfolio listed at top of page

## ORGANIZATIONS

Society of Future Engineers (SOFE)

American Society of Mechanical Engineers (ASME)

National Society of Professional Engineers (NSPE)

## CERTIFICATES

Solidworks Certified (CSWA) (04/2019)

AGILE Project Managment Certified (09/2019)

Six Sigma Green Belt (11/2019)